

IN THE CLAIMS:

All claims currently pending and under construction in the referenced application are shown below. Claims 22, 24, 28, 29, 31, 32, and 37 are amended herein. This listing of claims will replace all prior versions and listings of claims in the application. Claims 1-6, 8, 9, 12-18 and 25 and 26 were previously cancelled. Applicants respectfully submit that no new matter has been added.

Listing of Claims:

1-6. (Cancelled).

7. (Previously Presented) An immunogenic composition for allowing the marking of an exposure of a subject to wild-type *Salmonella*, said immunogenic composition comprising: an immunologically effective amount of live mutated bacteria and a pharmaceutically acceptable carrier;
wherein, said live mutated bacteria are *Salmonella enterica* that in their wild-type form carried flagella having at least one antigenic determinant; and
wherein after mutation, said live mutated bacteria are not capable of inducing an immune response to the at least one antigenic determinant of flagellin so as to allow marking of an exposure of the subject to the wild-type *Salmonella* in the subject to which it is administered.

8-9. (Cancelled).

10. (Previously Presented) The immunogenic composition according to claim 7, further comprising: an adjuvant selected from the group consisting of Freund's Complete adjuvant, Freund's Incomplete adjuvant, vitamin E, non-ionic block polymers, muramyl dipeptides, immune stimulating complexes, saponins, mineral oil, vegetable oil, Carbopol, *E. coli* heat-labile toxin, *Cholera* toxin, aluminum hydroxide, aluminum phosphate, aluminum oxide, oil-emulsions, and vitamin-E solubilise.

11. (Previously Presented) The immunogenic composition according to claim 7, wherein the immunogenic composition is in a freeze-dried or spray-dried form.

12-18. (Cancelled).

19. (Previously Presented) An immunogenic composition for allowing the marking of an exposure of a subject to wild-type *Salmonella*, said immunogenic composition comprising: an immunologically effective amount of inactivated mutated bacteria, the inactivated mutated bacteria having a mutation in a gene encoding flagellin, and a pharmaceutically acceptable carrier; wherein said inactivated mutated bacteria are *Salmonella enterica* that in their wild-type form carried flagella having at least one antigenic determinant; and wherein said inactivated mutated bacteria are not capable of inducing an immune response to the at least one antigenic determinant of flagellin in a subject to which it is administered.

20. (Previously Presented) A composition comprising:
an immunologically effective amount of live mutated *Salmonella typhimurium*, wherein the wild-type form of the live mutated *S. typhimurium* carried flagella having at least one antigenic determinant;
wherein said live mutated *S. typhimurium* are not capable of inducing an immune response to the at least one antigenic determinant of flagellin in a subject to which it is administered; and
a pharmaceutically acceptable carrier comprising water, a solution of physiological salt concentration, SPGA, sorbitol, mannitol, starch, sucrose, dextran, albumin, casein, bovine serum, skim milk, or phosphate buffer.

21. (Previously Presented) A composition comprising:
an immunologically effective amount of mutated *Salmonella typhimurium*, wherein the wild type form of the mutated *S. typhimurium* carries flagella;
wherein said mutated *S. typhimurium* lack flagellin and comprise an immunologically effective amount of a *S. typhimurium* strain STMP mutated bacterium; and
a pharmaceutically acceptable carrier.

22. (Currently amended) ~~An improved *Salmonella* vaccine, having~~ A composition for reducing the colonization of wild-type flagella carrying *Salmonella enterica*, the composition comprising an immunologically effective amount of *Salmonella enterica* bacteria and an adjuvant in a pharmaceutically acceptable carrier, the improvement comprising: the *Salmonella enterica* bacteria comprising an inactivated mutated bacterium that in their wild type form carried flagella having at least one antigenic determinant, but in their mutated form is no longer capable of inducing an immune response to the at least one antigenic determinant of flagellin in a subject to which the ~~vaccine composition~~ is administered, the mutated form having a mutation in a gene encoding flagellin.

23. (Cancelled).

24. (Currently amended) The ~~improved *Salmonella* vaccine composition~~ of claim 22, wherein the inactivated mutated bacteria lacks flagellin.

25-27. (Cancelled).

28. (Currently amended) The ~~improved *Salmonella* vaccine composition~~ of claim 22, wherein the ~~improved *Salmonella* vaccine composition~~ is in a freeze-dried or spray-dried form.

29. (Currently amended) A ~~marker vaccine composition~~, comprising *Salmonella enterica* bacteria, the ~~marker vaccine composition~~ comprising:
an immunologically effective amount of mutated *Salmonella enterica*, wherein the wild type form of the mutated *Salmonella enterica* carried flagella having at least one antigenic determinant;
wherein said mutated *Salmonella enterica* bacteria have a mutation in a gene encoding flagellin and are not capable of inducing an immune response to the at least one antigenic determinant of flagellin in a subject to which it is administered;
an adjuvant;
a pharmaceutically acceptable carrier; and
wherein the ~~marker vaccine composition~~ is in a freeze-dried or spray-dried form.

30. (Previously Presented) The immunogenic composition according to claim 19, wherein the immunogenic composition is in a freeze-dried or spray-dried form.

31. (Currently amended) The ~~improved marker vaccine composition~~ of claim 29, wherein the mutated *Salmonella enterica* is in live attenuated form.

32. (Currently amended) The ~~improved marker vaccine composition~~ of claim 29, wherein the mutated *Salmonella enterica* lacks flagellin.

33. (Cancelled).

34. (Previously Presented) In an immunogenic composition including a *Salmonella* bacterium, the improvement comprising:
a lyophilized immunogenic composition comprising a mutated *Salmonella enterica*;
said *Salmonella enterica* in its wild type form carrying flagella having at least one antigenic determinant; and
said mutated *Salmonella enterica* lacking at least one antigenic determinant of flagellin and not being capable of inducing an immune response to the at least one antigenic determinant of flagellin in a subject to which it is administered, the mutated *Salmonella enterica* having a mutation in a gene encoding flagellin.

35. (Cancelled).

36. (Previously Presented) A composition comprising:
an immunologically effective amount of mutated *S. typhimurium*, wherein the wild type form of the mutated *S. typhimurium* carries flagella;
wherein said mutated *S. typhimurium* comprises an immunologically effective amount of *S. typhimurium* strain STMP mutated bacteria; and
a pharmaceutically acceptable carrier.

37. (Currently amended) An immunogenic composition for allowing the marking of an exposure of a subject to wild-type *Salmonella*, said immunogenic composition consisting essentially of:
an immunologically effective amount of live mutated bacteria and water;
an adjuvant;
wherein, said live mutated bacteria are *Salmonella enterica* that in their wild-type form carried flagella having at least one antigenic determinant; and
wherein after mutation said live mutated bacteria are not capable of inducing an immune response to the at least one antigenic determinant of flagellin so as to allow marking of an exposure of the subject to the wild-type *Salmonella* in the subject to which the vaccine

immunogenic composition is administered.

38. (Previously Presented) An immunogenic composition for allowing the marking of an exposure of a subject to wild-type *Salmonella*, said immunogenic composition consisting essentially of:

an immunologically effective amount of live mutated bacteria and water;

wherein, said live mutated bacteria are *Salmonella enterica* that in their wild-type form carried flagella having at least one antigenic determinant; and

wherein after mutation said live mutated bacteria are not capable of inducing an immune response to the at least one antigenic determinant of flagellin so as to allow marking of an exposure of the subject to the wild-type *Salmonella* in the subject to which the immunogenic composition is administered.

39. (Previously Presented) An immunogenic composition for allowing the marking of an exposure of a subject to wild-type *Salmonella*, said immunogenic composition comprising:

an immunologically effective amount of live mutated bacteria and a pharmaceutically acceptable carrier;

an adjuvant;

wherein, said live mutated bacteria are *Salmonella enterica* that in their wild-type form carried flagella having at least one antigenic determinant; and

wherein after mutation said live mutated bacteria are not capable of inducing an immune response to the at least one antigenic determinant of flagellin so as to allow marking of an exposure of the subject to the wild-type *Salmonella* in the subject to which the immunogenic composition is administered.

40. (Previously Presented) A composition consisting essentially of:

an immunologically effective amount of live mutated *Salmonella typhimurium*, wherein the wild-type form of the live mutated *S. typhimurium* carried flagella having at least one antigenic determinant;

wherein said live mutated *S. typhimurium* are not capable of inducing an immune response to the

at least one antigenic determinant of flagellin in a subject to which the immunogenic composition is administered; and
a pharmaceutically acceptable carrier comprising water, a solution of physiological salt concentration, SPGA, sorbitol, mannitol, starch, sucrose, dextran, albumin, casein, bovine serum, skim milk, or phosphate buffer.